

**RECORD OF DECISION
FEDERAL HIGHWAY ADMINISTRATION
IMPROVEMENTS TO THE CANAL ROAD ENTRANCE
OF GEORGETOWN UNIVERSITY**

DISTRICT OF COLUMBIA

FHWA - DC - EIS - 95 -01 F

I. SELECTED ALTERNATIVE - DECISION

This Record of Decision contains the decision, as well as the rationale employed to reach that decision, on the implementation of improvements to the existing Canal Road entrance to the Georgetown University, in Washington, DC.

The Federal Highway Administration (FHWA) published a Notice of Intent to conduct an Environmental Impact Statement for the proposed project in the October 29, 1992, Federal Register. A public scoping meeting was held on February 11, 1993. A Draft Environmental Impact Statement (DEIS) was circulated in July 1995, and a public hearing was conducted on September 19, 1995. Based on comments received by the FHWA on the DEIS, the FHWA conducted additional traffic studies and studied additional alternatives. A written re-evaluation of the DEIS was prepared and approved on October 23, 1998, as required by Title 23 Code of Federal Regulations 771.129, because the Final Environmental Impact Statement (FEIS) was not completed within 3 years from the date of circulation of the DEIS. The FEIS for the project was approved and distributed in December 1998. The Notice of Availability for the FEIS was published in the January 8, 1999, Federal Register. The FHWA decided to extend the period of availability and a second notice was published in the Federal Register on January 29, 1999, extending the period of availability to February 22, 1999.

In addition to the public hearings identified above, presentations were made to local neighborhood groups, additional public meetings were held, and newsletters were distributed to keep the public informed throughout the environmental documentation process. These efforts are discussed in Chapter 8 of the FEIS.

The FEIS was developed in accordance with the National Environmental Policy Act (NEPA) of 1969, CEQ Regulations for Implementing the Procedural Provisions of the NEPA (40 CFR 1500-1508), the FHWA Environmental Impact and Related Procedures (23 CFR Part 771), Section 4(f) of the United States Department of Transportation Act (49 USC 303), the Historic Preservation Act of 1966 (16 USC 470f, Section 106, 110(d) and 110(f)), and other related Federal requirements.

Alternative 2A - Modified (at-grade signalized intersection) was identified in the FEIS as the Preferred Alternative and is the Selected Alternative for further project development and

subsequent construction. The Selected Alternative best meets the identified Project's Purpose and Need of substantially improving the vehicle access at the intersection of the Canal Road entrance to Georgetown University. The Selected Alternative will provide for all turning movements and will allow vehicles to access the University from eastbound Canal Road. The Selected Alternative reasonably minimizes environmental harm, including harm to Section 4(f) resources and to the biological and physical environment. The Selected Alternative has the least environmental impact during construction and after it is built, and does not significantly impact Canal Road traffic. The Selected Alternative is the environmentally preferred alternative.

The Selected Alternative has received support from the National Park Service and the District of Columbia Department of Public Works. All public and agency comments on the FEIS received during the availability period were considered in the decision of the Selected Alternative.

The Selected Alternative consists of a signalized intersection at the Canal Road entrance to Georgetown University. The existing Canal Road median will be removed from a point directly across the existing University entrance eastward for approximately 91 meters. A two-lane road will be constructed from and then adjacent to Canal Road, approximately 91 meters east of the existing University entrance to a point south of Lot 822 (Washington Metropolitan Area Transit Authority property) where it will connect to the existing University entrance road. The existing University entrance connection to Canal Road will be used for exiting vehicles using westbound Canal Road only. A 75 meter left turn storage lane will be constructed on eastbound Canal Road between the existing University entrance and the new University entrance road. Westbound Canal Road will also be reconstructed to accommodate the eastbound storage lane. New traffic signals will be constructed at the new University entrance to allow left turns from the new University entrance road onto eastbound Canal Road and to allow left turns from eastbound Canal Road onto the new University entrance road. A westbound Canal Road deceleration lane of 45 meters in length will be constructed for westbound Canal Road traffic turning right onto the new University entrance road. A diagram appears in the FEIS at Figure 2-6.

In addition, to mitigate potential traffic impacts on Canal Road, the Canal Road/Whitehurst Freeway intersection will be modified to add a 37 meter auxiliary lane on the eastbound Canal Road approach to that intersection. A portion of the existing upper Canal Road retaining wall along the south side of eastbound Canal Road will be reconstructed to accommodate the new lane.

II. ALTERNATIVES CONSIDERED

The EIS process resulted in the identification of five build alternatives that were analyzed in the FEIS. The FEIS alternatives consisted of three signalized intersections, one overpass, and one underpass. The No Build alternative was also analyzed in the FEIS. A variation of a signalized alternative from the DEIS was added to the FEIS. This alternative is identified as the Preferred Alternative (Alternative 2A-Modified) and is a modified version of Alternative 2A from the DEIS. These modifications were made in response to comments on the DEIS. Descriptions of these

alternatives are included in Chapter 2 of the FEIS. In addition, other alternatives were studied after the distribution of the DEIS. These alternatives consisted of traffic circles, U turns, and frontage roads.

Several variations of a signalized intersection were studied to determine the range of access improvements achievable at the Canal Road entrance. From this wide range of signalized alternatives, an alternative was selected and refined to reduce negative environmental impacts identified in the EIS process as much as practical. This alternative was identified as the Preferred Alternative in the FEIS.

During the refinement of the Preferred Alternative, it became apparent that the minor traffic benefits that an overpass or underpass provided compared to the signalized alternative were not enough to compensate for the extraordinary monetary and environmental costs associated with the underpass and overpass alternatives.

The Preferred Alternative was chosen as the Selected Alternative because it satisfies the Project's Purpose and Need, has the least environmental impact, and does not significantly impact Canal Road traffic. The Selected Alternative is the environmentally preferred alternative. The Selected Alternative causes the least damage to the biological and physical environment because it results in the least amount of impact, during construction and after it is built.

The following were the major factors that were used to determine the Selected Alternative:

Traffic

Careful and detailed analysis was performed to determine the traffic impacts associated with all of the alternatives presented in the FEIS for comparison purposes. All of the alternatives were determined to have minor impacts.

Further, a detailed Network Simulation Traffic Operations Model (NETSIM) was prepared for the Preferred Alternative and the results are documented in Chapter 5 of the FEIS. The NETSIM model is a corridor-level, microscopic simulation program that applies interval-based simulation to describe traffic operations. The NETSIM model calculated Level of Service (LOS) and travel times for the Preferred Alternative and for the No Build Alternative for comparison purposes.

There was no LOS decrease at any Canal Road intersection when comparing the Preferred Alternative with the No Build Alternative for years 1998 and 2016 (see Table 5-1 in the FEIS). The travel time along Canal Road from just west of the Key Bridge to just west of the Foxhall Road intersection increases in the westbound direction during the 2016 AM peak period. This increase is 12 seconds and is not considered significant. The only other increase is a 0.5 second increase in the westbound direction during the 1998 PM peak period (see Table 5-2 in the FEIS).

The Selected Alternative provides for substantially improved access at the Canal Road entrance to Georgetown University without causing a significant negative traffic impact on other roads, including Canal Road.

The statutory authorization for the Project mandated that the Project improve “motor vehicle access at a major traffic generator without decreasing the efficiency of a Federal-aid primary highway.” A Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation, concludes that the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against “decreasing the efficiency of a Federal-aid primary highway.” A copy of the memorandum is attached at Appendix A of this Record of Decision.

Secondary Development

None of the alternatives presented in the FEIS result in secondary development on Georgetown University. Projected University development is included in the 1983 and the current 1989 Campus Master Plans and the District of Columbia Board of Zoning Adjustment (BZA) ruling on November 1990. All alternatives, including the No Build alternative assume the same level of development for the University and general background traffic growth from all sources. The Selected Alternative does not add new traffic, it merely changes the routes that some vehicles would use to access the South Campus of the University.

The vast majority of agencies and public citizens who commented on the Project did not want development to occur on the private property currently owned by the Washington Metropolitan Area Transit Authority (WMATA), and previously owned by the Riders’ Fund. The Selected Alternative does not require any land or easement from any private properties, except the University. The Selected Alternative does not result in secondary development on other private properties.

Impacts to the Canal Wall

Initial studies of the C&O Canal Wall near the Canal Road entrance immediately identified the fragile nature of the Wall and the need to ensure that no impacts would occur as a result of the Project. The Selected Alternative will not impact the structural integrity of the existing C&O Canal Wall near the Canal Road entrance. There will be no increase in load on the C&O Canal Wall. The two lanes adjacent to the C&O Canal Wall will not be impacted by construction.

At the Whitehurst Freeway intersection, the C&O Canal Wall will receive surface concrete repair; however, this repair will not affect the structural integrity.

Also, at the Whitehurst Freeway, the retaining wall for the Whitehurst Freeway bridge over the Canal will be reconstructed; however, this will not have an impact on the C&O Canal Wall.

Aesthetic Impacts

Many of those who commented on the proposed Project were concerned about the aesthetics of an improved entrance. The Selected Alternative has the least negative aesthetic impacts of the build alternatives discussed in the FEIS. Only one retaining wall, approximately 31 meters long and 3 meters high, will be required along the new entrance road. There will be no impacts to the existing vegetation directly west of the existing Canal Road entrance. Most of the construction impact will be within the existing grassed area at the new entrance.

A landscaping plan will be designed at the Canal Road entrance to screen visual impacts and develop a pedestrian friendly atmosphere. Also, the existing C&O Canal Wall at the Whitehurst Freeway intersection will be repaired to help better define the edge of the C&O Canal Park. Appropriate facade treatments will be applied to all retaining walls (see fully executed Section 106 MOA at Appendix B of this Record of Decision).

Utility Impacts

There are three water mains (30", 36", and 48") underneath Canal Road. These water lines were constructed in the period between 1860 and 1890. Due to the age of these water lines, they are very fragile. In addition, there is a 12" gas line underneath Canal Road. The Selected Alternative does not require relocation of or impact these utilities. Only minor impacts to utilities will occur with the Selected Alternative. These include impacts to existing electrical utilities for roadway lighting.

Also, blasting will be prohibited during construction to ensure that the existing utilities underneath Canal Road will not be impacted.

Cultural Impacts

The Canal Road entrance to Georgetown University is located in the Georgetown Historic District and near to National Park Service property. This property includes the Potomac Palisades Parkway, the C&O Canal Historical Park, the Glover-Archbold Park, and the George Washington Memorial Parkway.

The Canal Road entrance is part of the identified features in the National Capital Planning Commission's Comprehensive Plan. Canal Road is designated a Special Street, and the Prospect Street gate of the Georgetown University is designated a Special Place in the Preservation and Historic Features element. The Parks, Open Space and Natural Features element designates Canal Road as a Gateway, the adjoining Palisades a Nature Feature, and the C&O Canal as a Historic Park.

In addition, several historic archaeological sites have been identified near the Canal Road entrance.

Given the historic environment at the Canal Road entrance, careful analysis was performed to minimize cultural impacts. The Selected Alternative has the least cultural impacts of the build alternatives in the FEIS. The effect of the Selected Alternative on historic properties has been coordinated with the District of Columbia State Historic Preservation Officer, the Advisory Council on Historic Preservation, the National Park Service, the District of Columbia Department of Public Works, and the National Park Service. By the 1998 Memorandum of Agreement for Section 106 compliance, signed by all parties, specific stipulations were developed in order to take into account the effect on historic properties for the Selected Alternative. The Selected Alternative was developed to minimize impact to the Georgetown Historic District, the Palisades, and the C&O Canal National Historic Park.

To ensure compliance with the National Capital Planning Commission's Comprehensive Plan, the Selected Alternative will not result in any modifications to any buildings that front identified Special Streets and Places in the Comprehensive Plan. The Selected Alternative will not have an adverse impact on the preservation of the C&O Canal National Historic Park as a legacy of inland water development. There will be no impact to the recreational aspect of the Park or to the Park's historic resources. The Selected Alternative results in the least amount of aesthetic impact to the historic and contemporary urban design aspects of the Canal Road, the C&O Canal and the Palisades scenic environment. The Selected Alternative maintains the elements that contribute to the Gateway and Special Street designations of Canal Road, in the Comprehensive Plan.

In addition, the Selected Alternative avoids any impact to identified archeological resources.

Construction Impacts

The Selected Alternative has the least construction impacts. As discussed above, the Selected Alternative was designed to minimize impacts. Construction of only one retaining wall will be required. There will be no blasting or deep cuts required for the Selected Alternative.

During construction, two lanes of traffic will be maintained during the AM and PM peak periods in both directions on Canal Road.

Air and Noise Impacts

The Selected Alternative will not result in any violation of air quality standards. The Selected Alternative will result in noise levels that are slightly reduced from current noise levels.

III. SECTION 4(f) RESOURCES

Where historic and/or park resources are affected by a proposed project, a determination is necessary, pursuant to Section 4(f) of the United States Department of Transportation Act of 1966, that there is no feasible and prudent alternative to the use of the historic and park resources

and that all possible planning to minimize harm to the affected resources is employed. The Section 4(f) Evaluation appears at Chapter 9 of the FEIS.

Based upon the information in the Section 4(f) Evaluation contained in the FEIS, and for the reasons discussed in this Record of Decision, the FHWA has determined that there are no feasible or prudent alternatives to the use of land from public parks and historic districts for the Selected Alternative and that the Selected Alternative includes all possible planning to minimize harm to these resources.

The Selected Alternative has the least impact to Section 4(f) lands of all the build alternatives in the FEIS. The Selected Alternative involves unavoidable impacts to Section 4(f) resources. The impacts and mitigation measures are discussed in Chapter 9 of the FEIS. It has been determined that, after mitigation, the Selected Alternative causes the least harm to Section 4(f) resources.

By letter dated, December 28, 1998, the Advisory Council on Historic Preservation accepted the Memorandum of Agreement (MOA) regarding the proposed Project's effects on historic properties. A copy of this Memorandum is attached at Appendix B of this Record of Decision. This was included in Appendix G of the FEIS. Acceptance by the Advisory Council on Historic Preservation completes the requirements of Section 106 of the National Historic Preservation Act and the Council's regulations.

IV. MEASURES TO MINIMIZE HARM

The FHWA will ensure that all practical measures to avoid or minimize adverse environmental impact, which are related to the Selected Alternative, will be implemented. The following mitigation measures, described in more detail in the FEIS, have been identified.

The 1998 MOA has been signed by the District of Columbia State Historic Preservation Officer, the National Park Service National Capital Regional Director, the District of Columbia Director of the Department of Public Works, the Federal Highway Administration, and the Advisory Council on Historic Preservation Executive Director. This 1998 MOA includes the mitigation measures to be carried out for the Selected Alternative to minimize the harm to affected park and historic district resources. A copy of the MOA appears in the FEIS at Appendix G and a copy of the fully executed MOA is attached at Appendix B of this Record of Decision.

In addition, throughout the alternatives development process, alternatives have been designed to minimize, to the extent practicable, impacts to identified resources. The measures incorporated into the Selected Alternative include:

Use of a retaining wall to minimize grading and the subsequent impact on the Palisades.

Geometric design to reduce the construction footprint and to minimize use of land administered by the National Park Service.

V. MITIGATION

The FHWA has determined that these measures described below are adequate to mitigate the impacts for the Selected Alternative and to meet the legal requirement of other statutes mandating the consideration of, or provision for, mitigation of environmental impacts, such as Section 4(f).

Traffic

No left turns outbound from the Georgetown University Canal Road entrance onto eastbound Canal Road allowed during the morning peak hours.

Provide a new third eastbound auxiliary lane, approximately 37 meters long, at the intersection of Canal Road and the Whitehurst Freeway.

Maintain the Prospect Street entrance to the Georgetown University as an entrance and exit at all times.

Synchronize signal timing for signals at the Canal Road entrance with the signals at the Canal Road-Foxhall Road intersection, and the Canal Road-Whitehurst Freeway intersection.

Provide a semi-actuated signal at the Canal Road entrance, which will allow for continuous green time on Canal Road unless activated by vehicles either entering or leaving the Georgetown University.

Secondary Development

Avoid any construction on, use of, or the provision of access to Lot 822, currently owned by WMATA.

Land Use

Ensure that the Georgetown University provides in-kind replacement for National Park Service Property to be taken for the Selected Alternative.

Ensure that the Georgetown University provides 2.5 acres of scenic easement to the National Park Service, as the local match.

Impacts to the Canal Wall

Avoid reconstruction of the eastbound lane of Canal Road adjacent to the C&O Canal Wall, except at the Whitehurst Freeway intersection widening.

Perform stability tests along the C&O Canal Wall supporting Canal Road at the Canal Road entrance location and at the Whitehurst Freeway intersection with Canal Road.

Perform minor concrete surface repair to the lower C&O Canal Wall at the Whitehurst Freeway and Canal Road intersection.

Aesthetic Impacts

Coordinate with the Commission of Fine Arts regarding plantings, textures, and materials.

Attempt to minimize the height of the proposed retaining wall on the north side of Canal Road to the presently estimated 3 meters.

Provide a landscaped median and sidewalk between the Georgetown University entrance road and Canal Road.

Provide suitable treatment (facing) of retaining walls along the entrance road and on the retaining walls at the Whitehurst Freeway intersection with Canal Road.

Utility Impacts

No blasting will be allowed during construction.

No impact to existing water utilities and gas utilities under Canal Road.

Cultural Impacts

Coordinate with the District of Columbia State Historic Preservation Officer and the National Park Service for design details at the Whitehurst Freeway intersection and Canal Road.

Coordinate with the District of Columbia State Historic Preservation Officer for design details to reduce visual impacts to the Georgetown Historic District.

Avoid impact to identified archeological sites.

Construction Impacts

Apply Best Management Practices for soil erosion and sediment control during construction.

Maintain two lanes on Canal Road during both peak periods in both directions during construction.

Minimize duration of disruption to vehicles, pedestrians, and bicycles.

Provide proper construction zone signing and traffic control.

No blasting will be allowed during construction.

Air and Noise Impacts

Ensure compliance with standard specifications for minimizing fugitive dust emissions and construction equipment emissions during construction.

Ensure compliance with District of Columbia Department of Public Works restrictions regarding nighttime construction activities.

Provide specifications for stoppage of construction noise during passage of mules along the C&O Canal Towpath.

Mitigation measures are described further in the FEIS at page P-3.

VI. MONITORING OR ENFORCEMENT PROGRAM

The FHWA (both the Eastern Federal Lands Highway Division and the District of Columbia Division Office) will monitor further project development of the Selected Alternative. The Eastern Federal Lands Highway Division will prepare the design plans and administer the construction contract. The District of Columbia Division Office will assist the Eastern Federal Lands Highway Division to ensure that all required Federal and local reviews and approvals are obtained. This monitoring will ensure that all practicable mitigation measures, as summarized above and as described in the FEIS, will be included in the final project design. The FHWA will conduct constant monitoring during the construction phase to ensure that these measures are constructed in accordance with plans and specifications.

VII. RESPONSE TO COMMENTS ON FINAL ENVIRONMENTAL IMPACT STATEMENT/SECTION 4(f) EVALUATION

The Notice of Availability of the FEIS was published in the Federal Register on January 8, 1999. Requests were received by the FHWA to extend the availability period up to 3 months and to conduct a public hearing. These requests were made because citizens believed that the FEIS was significantly different from the DEIS and there would not be enough time to review and prepare comments on the FEIS.

However, the Preferred Alternative identified in the FEIS was merely a refinement to Alternative 2A in the DEIS. The refinements were made to respond to citizen and agency comments on the DEIS and to result in an alternative that had less environmental impacts than what was in the

DEIS. The Preferred Alternative did not identify any new or additional significant impacts. This was documented by a review of the DEIS which was prepared and signed in October 1998, and is included in Appendix H of the FEIS.

Notwithstanding the above, the FHWA decided to publish an extension of the availability period in the Federal Register on January 29, 1999. The extended period of availability ended on February 22, 1999, which resulted in a 45-day period of availability.

Advertisements announcing the availability of the FEIS were published in The Washington Post, the Washington Times, and the Northwest Current. The notices announced the availability of the FEIS and how copies could be obtained for public review. Copies of the FEIS were also provided to those who received copies of the DEIS, who commented on the DEIS, and who requested to be placed on the project's mailing list. Copies of the FEIS were also sent to the Martin L. King Memorial Library on G Street, NW; the Georgetown Regional Library on R Street, NW; and the Palisades Branch Library on V Street, NW.

Fourteen letters were submitted that were critical of the FEIS and that expressed opposition to the Preferred Alternative as proposed in the FEIS. One of these letters contained a petition signed by 21 people. Seven letters were received in support of the Preferred Alternative. One of these letters was a petition signed by 98 people. Responses to the 14 letters that were critical of the FEIS are included in Appendix C of this Record of Decision.

The Environmental Protection Agency, Region III, reviewed the FEIS and Section 4(f) Statement and agreed that all of its comments were adequately addressed in the FEIS.

The FHWA has carefully reviewed all comments received on the FEIS and is satisfied that no significant new facts have been raised and that substantive comments have received a thorough response. The FHWA has considered all FEIS comments in reaching the decisions documented in this Record of Decision.

VIII. CONCLUSION

Based on the analysis and evaluation in the FEIS, and after careful consideration of the social, economic, and environmental factors, and input from the public involvement process, it is the FHWA's decision to adopt the Preferred Alternative, Alternative 2A-Modified from the FEIS, as the Selected Alternative and proposed action for this project.

Approved:

<u>/s/ Gary L. Klinedinst</u>	<u>3/16/99</u>
Gary L. Klinedinst	Date
Division Engineer, Eastern Federal Lands Highway Division, FHWA	

<u>/s/ James A. Cheatham</u>	<u>3/17/99</u>
James A. Cheatham	Date
Division Administrator, District of Columbia Division, FHWA	

APPENDIX A

Memorandum of Law

APPENDIX B

Memorandum of Agreement (Section 106)

APPENDIX C

Responses to Critical Comments regarding the Final Environmental Impact Statement

COMMENT: The final EIS shows that 10.6% & 30.2% (i.e., 40.8%) of arrivals to GU using the Canal Road entrance come from either the Whitehurst or Key Bridge (p. 3-16, FEIS) while only 0.2% & 0.4% (i.e., 0.6%), respectively, currently depart using the same roadways; however, the model does not appear to logically assume that the same percentage of departures (40.8%) will use these roadways under 2A-Mod. – in fact, the final EIS illogically claims that evening traffic would be better in 1998 under 2A-Mod. than No-Build (B/15.0 to B/11.4) at the Canal & Key Bridge intersection despite the jump from 0.4% to 30.2% of GU departures (see p. 5-3, FEIS).

RESPONSE: The percentages of arrivals and departures in the FEIS are correct. The numbers cited from Table 3-5 (FEIS, p. 3-16) are for the entire day's accumulation. The arrivals and departures were determined based on the results of the Origin-Destination survey.

The morning peak hour arrivals are 59 from Whitehurst and 168 from Key Bridge; and total 227 (FEIS Figure 4-7, & p.4-15). These are 13.1% and 37.4%, for a total of 50.5% of the AM peak hour arrivals of 449 vehicles.

Currently and under the No Build, the evening peak hour departures show 8 vehicles (1.8%) using Whitehurst and 142 (31.5%) using Key Bridge, for a total of 150 (33.3%).

The evening departures for Alternative 2-A Modified shows 21 vehicles exiting to Whitehurst and 142 to Key Bridge; and total of 163. (FEIS Figure 4-8, & p. 4-16.) These are 4.6% and 31.5% for a total of 36.1% of the PM peak hour 450 exiting vehicles.

The O-D survey specifically asked; "Ideally, what route would you prefer to take coming to and leaving the campus if you could?" (Traffic & Transportation Technical Report, June 1995, Appendix A.) The respondents provided their desired routings, which were appropriately assigned and distributed for the traffic analysis. The results appear as Figures 4-7 and 4-8 in the FEIS. These are identical from the DEIS, with Alternative 2-A Modified assuming the same numbers as Alternative 2A.

COMMENT: The final EIS estimate of only 13 additional cars on the Whitehurst during the PM-peak is not credible (see p. 3, 6/29/98 FHWA letter to DC/DPW, App. F-3, FEIS) and is inconsistent with the data in the final EIS (p. 4-15 says 228 vehicles will use the left turn exit in the PM-peak under 2A-Mod.; 10.4% (10.6% using the Whitehurst to arrive minus 0.2% currently using the Whitehurst to depart) is 24, not 13 cars).

RESPONSE: Page 4-15 of the FEIS states : "UP TO 228 vehicles in the PM peak hour are expected to use the new left turn exit under the Build Alternatives." The next sentence states: "Alternatives 2, 2A, and 2A-Modified, which all keep Prospect Street open, are expected to have 166 vehicles use the new left turn exit at Canal Road during the evening peak hour." (FEIS, p.4-15)

The "difference" in vehicles added to Whitehurst is a comparison between the No Build (8) and Alternative 2A-Modified (21). Subtracting 8 from 21 is 13.

COMMENT: The data in Section 5 of the Technical Appendix (Tables 2 & 3 and Figures 3 & 5) are illogical in many places, e.g., Whitehurst & Canal/M intersection - EB/TH PM-peak is significantly better in 2016 than 1998 under No-Build (E+/40.7 to C/23.9, pp. 16-17).

RESPONSE: Individual segment movements within an intersection do not represent the full intersection's Level of Service. The same cells in the same Tables (Tables 2&3, p. 16 & 17 of Tab 5 of the post-DEIS Technical Documentation) indicate that other segment movements have the opposite results. The 'net' result for the intersection is a compilation of volumes and associated delays of all movements. In fact, the LOS for the intersection at the Whitehurst Freeway and Canal Road, degrades from a C (23.2 seconds average vehicle delay) in 1998 to an F (66.9 seconds average vehicle delay) in 2016 for the No Build Alternative.

Six runs of NETSIM were performed for both 1998 and 2016, in each direction, for the AM and the PM peak hours for the No Build Alternative and for Alternative 2A-Modified. The results of the six runs for each scenario were averaged to give the highest confidence of results. (See further explanation in FEIS, p. 5-4.)

Also, see the response for the following comment.

COMMENT: The data in the key level of service Table 5-1 (p. 5-3 FEIS) are illogical in many places, including but not limited to:

Reservoir & Foxhall intersection - AM-peak is better in 1998 under 2A-Mod. than No-Build and 2016 is better than 1998 under No-Build.

MacArthur & Foxhall intersection - PM-peak is better in 1998 under 2A-Mod. than No-Build.

Canal & Foxhall intersection - PM-peak is better (B vs C) in 2016 than 1998 (under both 2A-Mod. & No-Build).

RESPONSE: If the intersection was found to operate at acceptable conditions with the existing timings (namely, for the entire intersection), no changes were made to the 1998 conditions. Typically, even LOS D is considered "acceptable". (Certainly with a LOS C, changes would not be expected to be made.) With the added background volumes in 2016, many of the intersections were "pushed" into an unacceptable LOS with those existing sets of timings, and therefore adjustments to the "splits" and "offsets" occurred. These changes in timings, in effect "optimization", may very well have rendered a better LOS in the future than current conditions. This is consistent with standard practices; traffic volume increases and unacceptable LOSs will lead to signal timing changes.

The valid comparisons are in the same year, between the No Build and the Build scenarios. The traffic model did not apply identical conditions to 1998 and 2016 at all intersections. The NETSIM report (Tab 5, pages 9 & 10) explains that most 1998 conditions were maintained, while adjustments were made to 2016 conditions.

COMMENT: Since the Whitehurst is one of the two affected Federal-aid primary highways, it is important for FHWA to ensure accuracy by using current traffic data and a traffic simulation model without known and significant limitations. The flawed data for the 27th-K- Whitehurst intersection are older than the traffic data for all of the other intersections studied and are outdated.

RESPONSE: As discussed in the Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation, the FHWA believes that the Congressional reference to a Federal-aid primary highway was to only Canal Road. However, even if the Congressional intent was to include the Whitehurst Freeway, the traffic data in the FEIS and the Technical Memoranda and Documents, dated December 1998, is sufficient to support that the Preferred Alternative may be constructed without decreasing the efficiency of the Whitehurst Freeway.

The principal concern for FHWA for traffic analysis or any environmental analysis is to determine the impact of the proposed alternatives relative to a "No Action" alternative. This does not mean that up-to-the-minute traffic data is necessary. It is accepted practice to establish a baseline and project future traffic.

The Whitehurst Freeway has undergone considerable reconstruction during the immediate past two years. It would not be appropriate to conduct traffic counts during that time and have them represent the No Build condition.

The Synchro 3 model was used to analyze the 27th Street/K Street/Whitehurst Freeway intersection. Synchro 3 is a traffic model accepted for use by the Institute of Transportation Engineers in optimizing traffic signal timings and assessing capacity. While it does not have the same components as the Highway Capacity Software (HCS) of the Highway Capacity Manual (which was used in part of the analysis for some of the other (near-in) intersections), it offers a valid model to compare Build versus No Build levels of service.

In the case of the 27th/K/Whitehurst intersection, this involves determining the impact of the additional 13 cars through the intersection in the PM peak hour. The use of Synchro 3 provided an appropriate comparison of the Build versus the No-Build.

The HCS model was used in the review by another consultant for this intersection (DeLeuw, in its 1993 report comparing the DCDPW-planned Whitehurst improvements with the Passonneau Plan). They used different total cycle lengths and showed a LOS D for 1992 traffic data at that intersection.

COMMENT: Unlike the other intersections, studied, the final EIS does not include NETSIM model data for the 27th-K-Whitehurst intersection (see p. 7, sect. 5, Tech. App., FEIS); indeed, the traffic simulation model used for traffic data for this key intersection has known and stated limitations –these limitations are the reason NETSIM was chosen by FHWA as the preferable model for the other intersections studied and included in the final EIS traffic data (see p. 5-3, FEIS).

RESPONSE: Chapter 5 of the FEIS explains how and why NETSIM was used. FHWA applied NETSIM as a detailed microscopic simulation program. Chapter 5 describes that "[the] NETSIM model is intended to apply to the specific proposed action (intersection being improved), and to no more than one to two intersections on either side as part of its modeled 'network'." (FEIS, p. 5-4)

It is not necessary to apply NETSIM to determine impacts of the Preferred Alternative at the intersection of 27th St.-K St.- Whitehurst Freeway. Since this intersection is approximately 3,000 feet away from the Canal Road intersection, it would take a considerable amount of effort and cost to model this intersection considering the platooning effects that dissipate with that distance and the entry of the Key Bridge traffic.

As mentioned above, a like-comparison of No Build with Build Alternatives is most important. For the 27th/K/Whitehurst intersection, the same model was used to compare the same traffic for the No Build as for the same traffic-plus-the-specific-changes from the Proposed Action. In other words, the difference was adding 13 cars to the PM westbound.

COMMENT: The flawed data for the 27th-K- Whitehurst intersection fail to reflect the various pedestrian movements (see my 1/10/99 fax to you on this point made by a DOT/FHWA reviewer commenting on DC/DPW data for the Whitehurst Rehab Project).

RESPONSE: As discussed above, the principal premise for this traffic analysis is to generate a reasonable comparison of the effect of the Build versus No Build Alternative. Keeping most factors the same, except for the exclusive traffic-generated by the Proposed Action, allows valid comparison. Changes in pedestrian use at the 27th/K/Whitehurst intersection would equally affect the No Build as well as the Build condition.

Also, the traffic signal cycle lengths and phasings for this intersection were provided by the DCDPW. (See Tab 6, of the post-DEIS Technical Documentation)

COMMENT: The final EIS includes an illogical assumption by not accounting for any increase in cars and traffic for any expansion of GU (up to and including the authorized 3.8 million square feet), especially in light of DC/DPW's 2/23/98 written advice to do so ("we request that the traffic analysis take into account the potential expansion of the Georgetown University campus, as indicated in the Campus Plan of the Year 2010. We believe that the potential construction of an additional 3.8 million square feet of campus could impact future traffic") (see App. F-1, FEIS). GU's current campus includes 4.2 million square feet of buildings which has resulted in over 4000 cars on campus and many more cars off campus in the neighborhoods surround GU.

RESPONSE: As stated in Chapter 4, the DCDPW provided the rate of increase in "background" traffic; this rate is 1.2 percent per year. (FEIS, p. 4-16.) This background traffic increase was applied equally to all alternatives, including the No-build alternative in the FEIS. Any changes potentially attributed to the University or any other existing or potential institution is included in this increase. It would be inappropriate to consider or suggest alternative land use approvals than those already in place by the local jurisdiction.

FHWA has coordinated closely with the DCDPW during this project. The DCDPW followed up their 2/23/98 letter with one on 7/30/98 that stated "...we are satisfied that Federal Highway Administration (FHWA) has thoroughly reviewed and addressed all of our questions regarding this project." (FEIS, Appendix F-1)

COMMENT: The final EIS incorrectly assumes a 4-6 PM PM-peak instead of the actual 5-7 PM PM-peak which is used for accurate traffic analyses in our area (see p. 10, sect. 5, Tech. App., FEIS)

RESPONSE: Actual 24-hour counts were taken by DCDPW in 3 separate years (1988, 1990, 1993). In each case, the evening peak hour was 5-6 p.m. Subsequent observations at Foxhall and Canal Road and other intersections confirmed the 5-6 p.m. peak hour. The FEIS discusses the peak hour used, and the current peak periods (FEIS, p. 4-15). All traffic analysis was based on the peak hour in each peak period. Turning movement counts, as stated in Tab 5, p. 10, of the post-DEIS Technical Memoranda & Documents, dated December 1998, also were taken within the peak periods.

In all cases, the FHWA applied the single "worst" or highest hour of the GU Main Academic Campus parking lot egress, which is 5-6 p.m.

COMMENT: The final EIS does not include traffic data for the entire study area boundaries requested by DC/DPW in 11/4/96 & 2/23/98 letters to FHWA as necessary to assess the full traffic impact of the demonstration project ("We strongly urge FHWA to conduct traffic impact analyses for the project area initially indicated in our November 1996 request"), especially for the area East of the Canal Road entrance to Georgetown University (GU) (see App. F-1, FEIS).

RESPONSE: The study area is considered adequate. No new or additional traffic would be added to the DC street system by the proposed project. Any Build Alternative merely redistributes existing traffic (users of the Main Academic Campus Parking Lot). The 7/30/98 letter from DCDPW discussed above states that the DCDPW concerns have been satisfied.

COMMENT: There is a “fatal flaw” due to the decrease in efficiency of one or both of the two Federal-aid primary highways.

RESPONSE: A Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation, concludes that the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against “decreasing the efficiency of a Federal-aid primary highway.”

In addition to the fax transmission dated January 25, 1999, Ms. Kahlow and Ms. Westy Byrd sent a letter dated February 7, 1999, to US Department of Transportation Secretary Rodney Slater with additional comments. Responses to these comments appear below.

Letter to Secretary Rodney Slater, US Department of Transportation, by Barbara F. Kahlow and Westy Byrd, dated February 7, 1999, Page 1 of 2

COMMENT: On January 7, 1999, we provided your General Counsel (GC) with an identification of seven of the many outstanding legal issues related to the defective FEIS, including one which we believe poses a “fatal flaw.”

The following are each of the seven issues with the FHWA response.

ISSUE 1. Non-public purpose. The purpose of the demonstration project has changed from the draft EIS where public funds were to be used to benefit the public to the final EIS where public funds would be used to benefit a private institution.

RESPONSE: The Purpose was stated in the DEIS as: “For almost two decades, it has been proposed to upgrade the Canal Road entrance to Georgetown University in order to reduce impacts on Georgetown residential streets to provide better control of traffic circulation to the University’s Main Academic Campus.”

The was perceived by some to mean that the Canal Road entrance was being improved solely to reduce traffic on residential streets. Therefore, to clarify the purpose of the Project the Purpose statement was revised in the FEIS to: “The purpose of the proposed project is to provide improved vehicular access at the intersection of the Canal Road entrance to Georgetown University.”

The purpose of the project has not changed throughout the process. It has always been to improve vehicular access at the Canal Road entrance and has always been consistent with the description of the Demonstration Project.

ISSUE 2. Statutory fatal flaw. The project could only be carried out “without decreasing the efficiency of a Federal-aid primary highway.”

RESPONSE: A Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation concludes that the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against “decreasing the efficiency of a Federal-aid primary highway.”

ISSUE 3. Incomplete National Environmental Policy Act (NEPA) compliance. The FEIS does not address the issue raised by the public regarding the statutory flaw.

RESPONSE: As stated in the Memorandum of Law, the legal opinion was issued after the release of the FEIS for the Proposed Project, since it was impossible to determine compliance with the statutory condition until the Preferred Alternative had been identified. The FEIS was published and noted in the Federal Register on January 8, 1999.

Letter to Secretary Rodney Slater, US Department of Transportation, by Barbara F. Kahlow and Westy Byrd, dated February 7, 1999 (Continued) Page 2 of 2

ISSUE 4. Incomplete National Historic Preservation Act (NHPA) Section 106 compliance. Alternative 2A - Modified will have an adverse affect on the Chesapeake and Ohio Canal Historic Park, however, no public meetings seeking public comment were ever held on Alternative 2A - Modified using 66 square meters of the C&O Canal for an additional lane of traffic to enter the Whitehurst Freeway at Canal Road.

RESPONSE: No additional hearings or public meetings are required by Section 106 of the National Historic Preservation Act. By letter dated December 28, 1998, the Advisory Council on Historic Preservation accepted the Memorandum of Agreement for the Preferred Alternative's effects on historic properties. As stated in the Council's letter, this completes the requirements of Section 106.

The potential taking of National Park Service land was discussed in the DEIS. The Preferred Alternative in the FEIS requires approximately 20,000 square feet less of National Park Service land than the Alternative 2A presented in the DEIS.

ISSUE 5. Unfairly extended comment period. There was no publicly-announced extension of the [DEIS] public comment period to provide all interested parties equal ability to comment.

RESPONSE: The formal comment period for the DEIS was not extended. As noted in Chapter 1, on page 1-3 of the FEIS, the comment period for the DEIS ended on September 30, 1995. (Page 8-5 in the FEIS incorrectly states that the comment period ended on September 30, 1998. However, this is a typographical error.)

ISSUE 6. Defective record. The Final EIS does not include both written correspondence from the public to DOT and written correspondence from DOT to the public.

RESPONSE: The FHWA is not aware of any letters commenting on the draft EIS that were not included in the FEIS. It should be noted that all six letters referenced in the comment were dated after the formal comment period on the DEIS ended (September 30, 1995).

ISSUE 7. Faulty traffic analysis.

RESPONSE: As stated in Chapter 4, the DCDPW provided the rate of increase in "background" traffic; this rate is 1.2 percent per year. (FEIS, p. 4-16.) This background traffic increase was applied equally to all alternatives, including the No-build alternative in the FEIS. Any changes potentially attributed to the University or any other existing or potential institution is included in this increase. It would be inappropriate to consider or suggest alternative land use approvals than those already in place by the local jurisdiction.

FHWA has coordinated closely with the DCDPW during this project. The DCDPW followed up their 2/23/98 letter with one on 7/30/98 that stated "...we are satisfied that Federal Highway Administration (FHWA) has thoroughly reviewed and addressed all of our questions regarding this project." (FEIS, Appendix F-1)

COMMENT: On January 25th, we provided your GC and the Federal Highway Administration with an identification of many problems with the traffic data in the FEIS.

RESPONSE: See the responses to the comments under *Fax Transmission from Barbara F. Kahlow, dated January 25, 1999*, above.

Mr. Kenneth Todd, February 10, 1999

COMMENT: In Appendix F-2 (79-1 and 92-1), the EIS concluded that my proposal for an unsignalized intersection presented safety and traffic problems without the appropriate signalization and geometrics. I cannot find in the EIS or the Technical Memo a MUTCD 4C-2 or 40 CFR 1502.14 (a) evaluation on which the conclusion to eliminate my proposal is based.

RESPONSE: A Traffic Warrant Analysis was conducted for the intersection at the Canal Road entrance to the University. The results appear under Tab 6, of the Technical Memoranda & Documents, dated December 1998. Four traffic signal warrants were met: Numbers 2, 7, 9 and 11.

The traffic analysis performed for the Preferred Alternative using NETSIM allows "permissive left turns" from eastbound Canal Road into the University. This means that unless there is a red signal for them, those wishing to make that left turn to enter the University may do so, oncoming traffic permitting. Similarly, exiting eastbound traffic would trip a detector to activate the signal.

The traffic analysis showed that the delays to Canal Road eastbound in the morning peak hour would be too severe by stopping traffic to allow outbound left turns from the University. The unsignalized alternative proposed by Mr. Todd would allow left turns out, by stopping (with Yield signs) one lane of eastbound Canal Road traffic, as well as both westbound lanes of Canal Road.

The MUTCD 4C-2 only recommends that an engineering study be conducted to determine if a signal will improve the overall conditions. This study is not mandatory. Numerous studies without added signals were conducted for this project. The FEIS identifies interchange concepts which were studied which did not require signalization. The Briefing Paper on DEIS Mitigation Alternatives, and the Traffic Circle Analysis also describe alternatives to signalizing the intersection. (See Tabs 1 and 2 of the Technical Memoranda & Documents, dated December 1998) Given the high volumes of traffic on Canal Road (e.g. in the 2016 PM peak, the westbound volume on Canal Road is projected at 3464 vehicles per hour), at least three lanes would be required for both eastbound and westbound Canal Road for a traffic circle or similar unsignalized intersection to operate adequately. In addition, the Canal Road entrance is close enough to the existing signals at Foxhall Road and the Whitehurst Freeway to take advantage of traffic signal synchronization along Canal Road.

Usually, an arterial gives the right of way to the through movements, with left turns required to yield (the exceptions are signals). Mr. Todd's unsignalized alternative reverses this convention by requiring the through movements to yield, which is considered an unsafe condition.

In addition, the MUTCD 2B-8 notes that yield signs should not be placed to control the major flow of traffic at an intersection, except where the majority is making right turns. However, no more than one approach should be subject to the yield sign. The unsignalized alternative proposed uses yield signs at three approaches.

Also, the unsignalized alternative does not have a left turn stacking lane for the vehicles eastbound on Canal Road that make the left turn into the University. Due to geometrics and the posted speed limit of eastbound Canal Road west of the entrance, this is considered an unsafe condition for vehicles stopped awaiting the opportunity to turn left into the University, without adequate storage.

Ms. Terry J. Barton, February 12, 1999

COMMENT: I can attest that the overwhelming majority of cars using Foxhall Road bear Maryland and Virginia license plates and that traffic never stops, not even in the middle of the night. For this reason, I beg you to conduct a realistic Environmental Impact Study and true traffic study including the length of Foxhall Road, MacArthur Boulevard, and the streets and intersections of Foxhall Village and Palisades neighborhoods.

RESPONSE: The purpose of the Environmental Impact Study is not to analyze ways to improve existing neighborhood traffic conditions, but to analyze traffic impacts that would occur if the Canal Road entrance to the Georgetown University was improved and compare these impacts to the No-Build condition. The FHWA believes that the environmental impacts and the traffic analysis for each alternative described in the FEIS are an accurate and complete description of the impacts associated with each alternative.

COMMENT 1. Canal Road is a public road, a major commuter artery into the city between and a gateway to downtown Washington. This project will decrease the efficiency of a Federal-aid primary highway and should not go forward until that has clearly been resolved.

RESPONSE: A Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation, concludes that the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against "decreasing the efficiency of a Federal-aid primary highway."

COMMENT 2. No hearing has been held under (Section 106) of the National Historic Preservation Act.

RESPONSE: No additional hearings or public meetings are required by Section 106 of the National Historic Preservation Act. By letter dated December 28, 1998, the Advisory Council on Historic Preservation accepted the Memorandum of Agreement for the Preferred Alternative's effects on historic properties. As stated in the Council's letter, this completes the requirements of Section 106.

The potential taking of National Park Service land was discussed in the DEIS. The Preferred Alternative in the FEIS requires approximately 20,000 square feet less of National Park Service land than the Alternative 2A presented in the DEIS.

COMMENT 3. The Final EIS supports a proposal (Alternative 2A-Modified) that is a new plan.

RESPONSE: The Preferred Alternative (Alternative 2A-Modified) was analyzed as a separate alternative in the FEIS. This alternative does not have any significant new impacts that were not identified in the DEIS. It should be noted that the Preferred Alternative was developed to respond to citizen and agency comments on Alternative 2A of the DEIS and has reduced environmental impacts. After comments on the DEIS were received, several variations of a signalized intersection were studied to determine the range of access improvements achievable at the Canal Road entrance. From this wide range of signalized alternatives, an alternative was selected and refined to reduce negative environmental impacts.

COMMENT 4. Traffic data used for the basis of the Final EIS is out of date, even using Georgetown University data from the 1980's.

RESPONSE: Most of the traffic counts were taken in 1993 and supplemented for the NETSIM model. The origin-destination survey of users of the South Campus parking lot of the Georgetown University was also performed in 1993. The background traffic numbers were increased by 1.2 percent per year to reflect future conditions. This background traffic increase was applied equally to all alternatives, including the No-build alternative in the FEIS. Additionally, counts were taken between 1995 and 1997 at numerous intersections to verify background traffic, turning movements, queue lengths, and signal cycle phases and timings. The updated field observations were applied into the traffic models as appropriate.

These numbers are considered accurate, especially since the 1993 counts were taken before the Whitehurst Freeway and the Canal Road reconstruction, which could impact traffic counts, had begun. The reconstruction of the retaining wall along the portion of Canal Road west of Foxhall Road is still continuing.

The study that was "done in the early 1980s" was a study of the modal split of trips to the campus and not used to develop existing or future traffic volumes.

COMMENT 5. Mayor Anthony A. Williams, the new mayor of Washington, DC, has had NO opportunity to review these significant changes to Canal Road or to assess these changes as part of a city or regional transportation plan.

RESPONSE: The DC DPW is the Mayor's representative for traffic matters. The DC DPW has been involved in commenting on the development of the EIS and the Preferred Alternative. The DC DPW was provided a copy of the FEIS. In addition, the Mayor's Office was provided with a copy of the FEIS. This project is included in the District of Columbia Statewide Transportation Improvement Program for FY 1999-2001. This project is also in the Transportation Planning Board's approved Long-Range Transportation Plan for the National Capital Region, as amended on July 15, 1998.

COMMENT 6. The Final EIS does not take into consideration future building plans for Georgetown University that will generate increased traffic to and from the university on a daily basis.

RESPONSE: The FEIS does take into consideration future building plans for the University. As discussed on Page 3-4 of the FEIS, the University's Campus Plan was approved by the District of Columbia Board of Zoning Adjustment (BZA) on October 12, 1990. The Campus Plan states, "... the extent of the development of new facilities will be based on the need to replace and/or reconfigure facilities, unmet needs for existing programs and population, and increased emphasis on research and graduate-level study." Also, BZA has limited the number of parking spaces on the South Campus. The background traffic figures on roads outside of the South Campus were increased by 1.2 percent per year to take into consideration overall development in the Georgetown area. This background traffic increase was applied equally to all alternatives, including the No-build alternative in the FEIS.

COMMENT 7. The left-hand turn into the university from Canal Road will impact traffic in the adjacent neighborhoods.

RESPONSE: The traffic analysis indicates that some roads west of the University will experience some increase in traffic (e.g. 27 vehicles in the AM peak hour on MacArthur Boulevard) while some roads will experience a decrease (e.g. 41 vehicles in the AM peak hour on Reservoir Road, west of Foxhall Road). These impacts are considered minor and will not have a significant impact.

COMMENT 8. The FHWA failed to work with affected communities despite official requests by the National Capital Planning Commission and the DC Department of Public Works.

RESPONSE: The FHWA has met with community groups on 8 occasions since the Public Hearing for the DEIS was held in September 1995. The FHWA attended a monthly meeting of the Palisades Citizens Association on November 10, 1998 to explain the Alternative that became the Preferred Alternative in the FEIS.

As discussed on Page 2-11 of the FEIS, the FHWA did study the "compromise alternative" and numerous variations to it, as well as many other options requested to be considered. The analysis for this study is included in the Technical Memoranda & Documents, which was made available when the FEIS was distributed.

COMMENT 9. The Final EIS should have been issued within three years of the Draft EIS as required by regulations.

RESPONSE: There are no regulations that require the issuance of a FEIS within three years of the DEIS distribution. Based on comments were received by the FHWA on the DEIS, the FHWA conducted additional traffic studies and studied additional alternatives. Title 23 Code of Federal Regulations 771.129 requires a written re-evaluation of the DEIS if the FEIS is not completed within 3 years. This re-evaluation is included in Appendix H of the FEIS.

COMMENT 10. Construction, anticipated to last nine months, will reduce traffic to two lanes most of the time on Canal Road.

RESPONSE: As noted in Appendix E, Page E-10, of the FEIS, two lanes of traffic in each direction will be maintained during construction during both peak periods on Canal Road. During off-peak periods lane closures on Canal Road will be necessary during construction, with one lane maintained in each direction.

COMMENT 1. We question the validity of your traffic numbers, particularly since they are out of date and do not take into account Georgetown's University's current and future plans with respect to campus building development and traffic flow. Therefore, we remain concerned, as we have indicated in previous letters, that this project will worsen the already terrible traffic problems on the main thoroughfares running through our residential neighborhoods.

RESPONSE: The traffic numbers are considered valid. Most of the traffic counts were taken in 1993 and supplemented for the NETSIM model. The origin-destination survey of users of the South Campus parking lot of the Georgetown University was also performed in 1993. The background traffic numbers were increased by 1.2 percent per year to reflect future conditions. This background traffic increase was applied equally to all alternatives, including the No-build alternative in the FEIS.

Additionally, counts were taken between 1995 and 1997 at numerous intersections to verify background traffic, turning movements, queue lengths, and signal cycle phases and timings. The updated field observations were applied into the traffic models as appropriate.

These numbers are considered accurate, especially since the 1993 counts were taken before the Whitehurst Freeway and the Canal Road reconstruction had begun.

COMMENT 2. We recommend that any final decision on the project be delayed until it can be analyzed in the context of the renewal of the campus master plan for Georgetown University which begins next winter and during which the University will reveal future development and traffic plans for approval (or rejection) by our city government.

RESPONSE: As stated in the re-evaluation of the DEIS in Appendix H of the FEIS, the Campus Plan for Georgetown University is in effect until December 31, 2000. The formal submittal of the new Campus Plan is not expected until the year 2000. Waiting on approval of the new master plan would result in a delay of at least 19 months. Also, the DC DPW growth rate of 1.2% per year covers a balance of all activities, and would not necessarily be adjusted solely based on a change from Georgetown University. This background traffic increase was applied equally to all alternatives, including the No-build alternative in the FEIS.

The only issue relevant to the FEIS and an updated Campus Plan would be the amount of traffic generated. The traffic is controlled by the parking cap imposed by BZA to limit the number of vehicles at the South Campus Parking Lot. The parking cap has been in effect since 1983 and there is no indication that this cap will be changed.

COMMENT 3. We urge that the FHWA, Georgetown University and relevant city officials become more involved with neighborhood groups to work out a mutually agreeable solution in the context of this master plan process.

RESPONSE: The preparation of the FEIS satisfied all public involvement regulations. As noted in Chapter 8 of the FEIS, the FHWA met with community groups on at least 11 occasions, after the September, 1995 public hearing on the DEIS.

It should be noted that the improvement of the Canal Road entrance is included in the Board of Zoning Adjustment 1990 approval for the existing University's Campus Plan.

COMMENT 4. Finally, if you decide to proceed despite the unanimous objection of neighbors west of the University, we urge that you do so only if

- a.) an enforceable commitment, by a Letter of Agreement, by means of an easement or through the next Campus Plan, exists from Georgetown University which requires it to continue to allow access and departure through its Prospect Street entrance;
- b.) left turns are not allowed into the University from the west. Your own traffic figures, which are all predicated on keeping Prospect Street open, indicate that the problems on Prospect Street east of the University occur primarily in the evening and the left turn going out of the University should alleviate this. A trial period with this change for a year or so should indicate whether this change alone solves the problem without disruption of the traffic patterns for the rest of us.

RESPONSE: a.) The continued access through the Prospect Street entrance of the Georgetown University is beyond the control of the FHWA. Only the Board of Zoning Adjustment can enforce such a requirement.

b.) Allowing left turns from eastbound Canal Road into the University will substantially improve vehicle access at the entrance without causing significant impacts to Canal Road traffic.

Alice Neff Lucan, Esq., Craig Baab, Esq., Robert J. Siciliano, Esq., Robert M. Lucan, and Margaret Parke (Foxhall Village residents), dated February 20, 1999

COMMENT: We ask FHWA not to approve the Alternative 2A-Modified *until* Georgetown University makes a commitment to certain additional steps [i.e. Traffic Control and Campus Expansion concerns] designed to dissipate the traffic impact on the Foxhall Community.

RESPONSE: The FEIS analysis is based on rulings by the DC Board of Zoning Adjustment concerning the University's Campus Plan and other related issues (e.g. Parking). This is the proper venue for reaching community consensus on these Georgetown University commitments. Notwithstanding this, there are no other commitments by the University that are required to validate the FEIS impact analyses.

As far as particular traffic control measures suggested, some are anticipated as part of the Preferred Alternative, or are already required by the DC BZA.

Specifically, for the traffic control measures:

(a) The left turn signal phase into and out of the University will be activated by demand

(b) The DC BZA ruling mandates the use of a automated gate that restricts the amount of traffic that can cross the border between the Academic Campus (South) and the Medical Campus (North).

Janet Adams Nash, (Georgetown Reservoir Neighborhood Area), dated February 20, 1999

COMMENT: The FHWA 2A-Modified and Other “Build” Options Will Increase Traffic Delays for MacArthur Boulevard, Reservoir, Foxhall, Canal Road, and Whitehurst Freeway Commuters and Harm Pedestrians

RESPONSE: The traffic analysis included in the FEIS concludes that there will be only minor delays to some local roads as a result of the project. Most future increases in delay would be attributed to increases in background traffic (1.2 % growth per year). This background traffic increase was applied equally to all alternatives, including the No-build alternative in the FEIS. The project will not add any new traffic, but merely will redistribute traffic accessing the University’s South Campus parking lot. Intersection turning movement counts were updated for the NETSIM analysis. The final design will take into consideration pedestrian safety.

COMMENT: The FHWA Has Not Met Its Burden Under the Public Law Prohibiting Modifications to a Road or Highway that Will Impede Traffic on a Federally-Funded Road or Highway

RESPONSE: A Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation, concludes that the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against “decreasing the efficiency of a Federal-aid primary highway.”

COMMENT: Because the 2A-Modified Option Is a New Proposal Requiring Public Park Land, the FHWA Must Seek Public Comment Under the Section 106 Hearing Provisions of the National Historic Preservation Act (“NHPA”).

RESPONSE: No additional hearings or public meetings are required by Section 106 of the National Historic Preservation Act. By letter dated December 28, 1998, the Advisory Council on Historic Preservation accepted the Memorandum of Agreement for the Preferred Alternative’s effects on historic properties. As stated in the Council’s letter, this completes the requirements of Section 106.

The potential taking of National Park Service land was discussed in the DEIS. The Preferred Alternative in the FEIS requires approximately 20,000 square feet less of National Park Service land than the Alternative 2A presented in the DEIS.

COMMENT: The Georgetown University 1989 Campus Master Plan is Obsolete and With Knowledge of the University’s Year 2000 Successor Plan the FHWA Cannot Fully Assess Future Traffic Patterns in the Affected Geographic Area

RESPONSE: As stated in the re-evaluation of the DEIS in Appendix H of the FEIS, the existing campus master plan for Georgetown University is in effect until December 31, 2000. The formal submittal of the new master plan is not expected until the year 2000. Waiting on approval of the new master plan would result in a delay of at least 19 months. The background traffic growth of 1.2% assumes development at Georgetown University. The only question relevant to the FEIS and an updated Campus Plan would be the parking cap imposed by BZA to limit the number of vehicles at the South Campus Parking Lot. The parking cap has been in effect since 1983 and there is no indication that this cap will be changed.

COMMENT: It [the FEIS] relies on seriously outdated and incomplete origin/destination data

RESPONSE: The traffic numbers are not considered outdated. Most of the traffic counts were taken in 1993 and supplemented for the NETSIM model. The origin-destination survey of users of the South Campus parking lot of the Georgetown University was also performed in 1993. The background traffic numbers were increased by 1.2 percent per year to reflect future conditions. This background traffic increase was applied equally to all alternatives, including the No-build alternative in the FEIS. Additionally, counts were taken between 1995 and 1997 at numerous intersections to verify background traffic, turning movements, queue lengths, and signal cycle phases and timings. The updated field observations were applied into the traffic models as appropriate.

These numbers are considered accurate, especially since the 1993 counts were taken before the Whitehurst Freeway and the Canal Road reconstruction, which could impact traffic counts, had begun.

COMMENT: It [the FEIS] fails to consider changes in traffic generation of several facilities in the area that will impact and be impacted by the project

RESPONSE: The FEIS does consider potential new development at the Georgetown University and other potential new development in the Georgetown area. The 1.2 percent increase applied to background traffic volumes for all build alternatives and the No-build alternative every year through 2016 should account for any future increase in development.

COMMENT: It [the FEIS] fails to plan for the impact of the “build-out” of the university facilities allowed under the current campus plan

RESPONSE: The FEIS does take into consideration the development of University facilities allowed under the existing master plan. As discussed above, a 1.2 percent growth factor was applied to traffic volumes on all streets adjacent to the University. The numbers of vehicles accessing the South Campus parking lot is not expected to increase because of the current parking cap imposed by the Board of Zoning Adjustment and the nature of the development in the master plan. The parking cap has been in effect since 1983 and there is no indication that this cap will be changed.

COMMENT: It [the FEIS] adopts an artificial “divided” campus concept

RESPONSE: The “divided” campus concept was noted in the FEIS because the University is required by the Board of Zoning Adjustment to keep the north and south campus divided.

COMMENT: It [the FEIS] inadequately provides for the enhanced through traffic on M Street that is a direct consequence of the project’s goal: moving traffic from Prospect Street to Canal Road (M Street); as such, it will be impossible to reach a Finding of No Significant Impact

RESPONSE: A Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation, concludes that the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against “decreasing the efficiency of a Federal-aid primary highway.”

COMMENT: It [the FEIS] does not demonstrate that there are no alternatives to the taking of 4(f) lands

RESPONSE: The Final Section 4(f) Evaluation is included in Chapter 9 of the FEIS. Section 9.8 on page 9-17 provides the basis for the conclusion that “no feasible and prudent alternatives exist” for the taking of 4(f) lands. That is the test under Section 4(f).

COMMENT: It [the FEIS] adversely impacts on Canal Road, a “Special Street” and on the Palisade, a “Natural Feature,” failing to provide them with protection from traffic channelization and from diminished visual and historic quality.

RESPONSE: On page 4-12, the FEIS states that due to minimal impacts to Canal Road and adjacent C&O Canal, the Preferred Alternative would maintain the elements that contribute to the Gateway and Special Street designations of Canal Road. In addition, there is no construction impact to the Palisades’ scenic environment, associated with the Preferred Alternative.

COMMENT: And most importantly, It [FEIS] dismissively treats the “community compromise” which the National Capital Planning Commission specifically and forcefully asked be analyzed **thoroughly** during the October 1996 public hearing.

RESPONSE: The FEIS does discuss the NCPC “community compromise” on page 2-11. The discussion references a report titled, Briefing Paper on Signalized Intersection Alternatives: Engineering and Traffic Operational Considerations, which is included in the Technical Memoranda & Documents, dated December 1998.

The Preferred Alternative incorporates many design details from the “community compromise”. One of the main differences is that the Preferred Alternative allows left turns into the University from eastbound Canal Road and the “community compromise” does not. The left turns were included in the Preferred Alternative because it does not significantly impact traffic on Canal Road and it substantially improves vehicle access at the Canal Road entrance, which is required under the Congressional mandate.

COMMENT: A major objection is that no federal money may legally be spent on a project whose effects cannot be demonstrated to have NO negative impact on a federally-funded roadway.

RESPONSE: A Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation, concludes that the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against “decreasing the efficiency of a Federal-aid primary highway.”

COMMENT: [There has been an] inadequate analyses of the scope of effects the proposed project will have on commutation and federally-funded roads. FHWA in my view has been unresponsive to 1995 and 1996 requests by the National Capital Planning Commission (NCPC) for more thorough study of traffic and alternatives.

RESPONSE: The FHWA has responded to the NCPC requests and incorporated many of the concerns, particularly about protecting parkland areas from secondary development.

COMMENT: This project is best considered in the context of a regional capital transportation plan. Its approval should rationally go hand-in-hand with the upcoming renewal in 2000 of Georgetown University’s campus master plan, as well.

RESPONSE: This project is in the Transportation Planning Board’s approved Long-Range Transportation Plan for the National Capital Region, as amended, on July 15, 1998.

The purpose of the project is to substantially improve the access at the Canal Road entrance to Georgetown University. The FEIS analyzed both local and regional impacts associated with that improvement. These impacts were determined based on the current approved University Campus Plan, which does not expire until December 31, 2000.

COMMENT: In preparing this final EIS, FHWA apparently ignored reasonable concerns about broader impact that NCPC commissioners expressed at the NCPC hearing on this project October 3, 1996.

RESPONSE: All of NCPC’s concerns were addressed in the FEIS. The Preferred Alternative has the least environmental impact on parklands of all of the build alternatives and includes mitigation to reduce negative traffic impacts on Canal Road.

COMMENT: FHWA’s final EIS now before us did no further traffic studies at no wider radius than its original, outdated studies.

RESPONSE: Additional traffic analysis was performed for the project and are discussed in Chapters 4 and 5 of the FEIS.

COMMENT: The final EIS of January 1999 responds to neither the NCPC’s suggestions or its demands, leaving only the “No Build” option as the only good policy choice today.

RESPONSE: All of the NCPC’s comments were addressed in the FEIS. See FHWA’s responses to both of NCPC letters in Appendix F-1, of the FEIS.

COMMENT: Consideration of any modification to Canal Road at the Georgetown University south entrance should await a DC capital corridors transportation plan and this year's consideration of the next ten-year campus plan for the university.

RESPONSE: This project is included in the District of Columbia Statewide Transportation Improvement Program for FY 1999-2001.

The DC DPW growth rate of 1.2% per year covers a city-wide balance of all activities, and would not be adjusted solely from a change from Georgetown University. As stated in the re-evaluation of the DEIS in Appendix H of the FEIS, the existing campus master plan for Georgetown University is in effect until December 31, 2000. The formal submittal of the new master plan is not expected until the year 2000. Waiting on approval of the new master plan would result in a delay of at least 19 months.

COMMENT: More important, on-campus traffic flows, access roads, gates and parking limits could be considered and adjusted to fit best with any change to the south entrance; on-campus traffic and parking issues are now frozen out of consideration by the current BZA-mandated master plan. It makes sense to defer any alteration on Canal Road until these other, integrally-linked plans can be considered in tandem, based on up-to-date analyses of the true radius of traffic flow through the proposed project area.

RESPONSE: The BZA rulings on the current Campus Plan do include access and parking restrictions on the University. These conditions were assumed for the Build and No-Build alternatives in the FEIS. There is no indication that these restrictions would change.

Georgetown Residents Alliance, dated February 22, 1999

COMMENT: Through lengthy community meetings, almost all affected community groups arrived at a compromise that would offer Georgetown much of the traffic flexibility it sought, while providing residents of lower 34th Street and 35th Streets with the same relief that the new FHWA design provides.

Why the FHWA chose not to evaluate this option, as requested by the National Capital Planning Commission, remains a mystery. At the time of the 1996 hearing, FHWA indicated it would work extensively with the community, yet I am aware of no meeting to discuss design elements until Georgetown University convened such a session to promote its preferred design.

RESPONSE: The FEIS does discuss the NCPC "community compromise" on page 2-11. The discussion references a report titled, Briefing Paper on Signalized Intersection Alternatives: Engineering and Traffic Operational Considerations, which is included in the Technical Memoranda & Documents, dated December 1998.

The Preferred Alternative incorporates many design details from the "community compromise". One of the main differences is that the Preferred Alternative allows left turns into the University from eastbound Canal Road and the "community compromise" does not. The left turns were included in the Preferred Alternative because it does not significantly impact traffic on Canal Road, and it substantially improves vehicle access at the Canal Road entrance, which is the purpose of the Project.

The FHWA has met with community groups on 11 occasions since the Public Hearing for the DEIS was held in September 1995.

COMMENT 1. Real effect of east bound left turns in stacking lane.

RESPONSE: A detailed NETSIM traffic analysis was performed for the Preferred Alternative in Chapter 5 of the FEIS. This analysis considered existing traffic conditions and proposed traffic movements to determine traffic impacts of the Preferred Alternative. This results indicate that the left turn stacking lane on eastbound Canal Road will not spill over onto the through lanes of eastbound Canal Road.

COMMENT 2. Increase of commuter traffic from arterial roads to residential streets.

RESPONSE: Based on the traffic analysis performed for the FEIS, there is no indication that significant amounts of arterial traffic will regularly use residential streets if the Preferred Alternative is implemented. The traffic impacts associated with the Preferred Alternative are not considered significant.

COMMENT 3. Failure to perform required traffic studies.

RESPONSE: The traffic study is considered adequate. All of the key intersections were studied and analyzed for the Preferred Alternative which is included in Chapter 5 of the FEIS.

All of the NCPC's comments were addressed in the FEIS. See FHWA's responses to both of NCPC letters in Appendix F-1, of the FEIS.

The traffic numbers are not considered outdated. Most of the traffic counts were taken in 1993 and supplemented for the NETSIM model. The origin-destination survey of users of the South Campus parking lot of the Georgetown University was also performed in 1993. The background traffic numbers were increased by 1.2 percent per year to reflect future conditions. Additionally, counts were taken between 1995 and 1997 at numerous intersections to verify background traffic, turning movements, queue lengths, and signal cycle phases and timings. The updated field observations were applied into the traffic models as appropriate.

These numbers are considered accurate, especially since the 1993 counts were taken before the Whitehurst Freeway and the Canal Road reconstruction had begun. Construction activity would tend to skew counts considerably.

No new or additional traffic would be added to the DC street system by the proposed project. Any Build Alternative merely redistributes existing traffic (users of the Main Academic Campus Parking Lot).

Not all traffic will be diverted from the Prospect Street entrance. A Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation, concludes that the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against "decreasing the efficiency of a Federal-aid primary highway."

COMMENT 4. Failure to take into account planned Georgetown University growth.

RESPONSE: As stated in the re-evaluation of the DEIS in Appendix H of the FEIS, the existing campus master plan for Georgetown University is in effect until December 31, 2000. The formal submittal of the new master plan is not expected until the year 2000. Waiting on approval of the new master plan would result in a delay of at least 19 months. The background traffic growth of 1.2% assumes development at Georgetown University. Any changes potentially attributed to the University or any other existing or potential institution is included in this increase. It would be inappropriate to consider or suggest alternative land uses other than those already approved by the local jurisdiction.

The only issue relevant to the FEIS and an updated Campus Plan would be the amount of traffic generated. Traffic is controlled by the parking cap imposed by BZA to limit the number of vehicles at the South Campus Parking Lot. The parking cap has been in effect since 1983 and there is no indication that this cap will be changed.

COMMENT 5. Left turns out from Georgetown University will create gridlock.

RESPONSE: Based on the detailed traffic analysis from Chapters 4 and 5 of the FEIS, there is no indication that left turns out of the University will cause gridlock.

COMMENT 6. FHWA is violating the National Historic Preservation Act by not providing the mandated Section 106 hearing on the 2A Modified.

RESPONSE: The impacts to Park land under the Preferred Alternative are less than the impacts to Park land under Alternative 2A from the DEIS and the FEIS. Chapter 9, the Section 4(f) Statement, of the FEIS fully discusses the use of all Park land. By letter dated December 28, 1998, the Advisory Council on Historic Preservation accepted the Memorandum of Agreement for the Preferred Alternative's effects on historic properties. As stated in the Council's letter, this completes the requirements of Section 106.

COMMENT 7. The FHWA has not met its burden of proof that the 2A Modified will not impede traffic on a Federally funded road or highway.

RESPONSE: A Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation, concludes that the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against "decreasing the efficiency of a Federal-aid primary highway."

Foxhall Community Citizens Association, February 21, 1999

COMMENT: The FHWA 2A-Modified and Other “Build” Options Will Increase Traffic Delays for MacArthur Boulevard, Reservoir, Foxhall, Canal Road, and Whitehurst Freeway Commuters and Harm Pedestrians

RESPONSE: The traffic analysis included in the FEIS concludes that there will be only minor delays to some local roads as a result of the project. Most future increases in delay would be attributed to increases in background traffic (1.2 % growth per year). This background traffic increase was applied equally to all alternatives, including the No-build alternative in the FEIS. The project will not add any new traffic, but merely will redistribute traffic accessing the University’s South Campus parking lot. Intersection turning movement counts were updated for the NETSIM analysis. The final design will take into consideration pedestrian safety.

COMMENT: The FHWA Has Not Met Its Burden Under the Public Law Prohibiting Modifications to a Road or Highway that Will Impede Traffic on a Federally-Funded Road or Highway

RESPONSE: A Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation concludes that the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against “decreasing the efficiency of a Federal-aid primary highway.”

COMMENT: Because the 2A-Modified Option Is a New Proposal Requiring Public Park Land, the FHWA Must Seek Public Comment Under the Section 106 Hearing Provisions of the National Historic Preservation Act (“NHPA”).

RESPONSE: No additional hearings or public meetings are required by Section 106 of the National Historic Preservation Act. By letter dated December 28, 1998, the Advisory Council on Historic Preservation accepted the Memorandum of Agreement for the Preferred Alternative’s effects on historic properties. As stated in the Council’s letter, this completes the requirements of Section 106.

The potential taking of National Park Service land was discussed in the DEIS. The Preferred Alternative in the FEIS requires approximately 20,000 square feet less of National Park Service land than the Alternative 2A presented in the DEIS.

COMMENT: The Georgetown University 1989 Campus Master Plan is Obsolete and With Knowledge of the University’s Year 2000 Successor Plan the FHWA Cannot Fully Assess Future Traffic Patterns in the Affected Geographic Area

RESPONSE: As stated in the re-evaluation of the DEIS in Appendix H of the FEIS, the existing campus master plan for Georgetown University is in effect until December 31, 2000. The formal submittal of the new master plan is not expected until the year 2000. Waiting on approval of the new master plan would result in a delay of at least 19 months. The background traffic growth of 1.2% assumes development at Georgetown University. The only question relevant to the FEIS and an updated Campus Plan would be the parking cap imposed by BZA to limit the number of vehicles at the South Campus Parking Lot. The parking cap has been in effect since 1983 and there is no indication that this cap will be changed.

COMMENT 1. The right turn land from eastbound Canal Road onto Whitehurst Freeway will be blocked by only 7-8 cars stacking in the center lane. During rush hour cars frequently stack up all the way to the present entrance. For a functional right turn lane, more than 800 square feet will have to be taken from the C&O Canal. Extend the right turn lane from eastbound Canal Road onto Whitehurst Freeway to the proposed entrance.

RESPONSE: A detailed NETSIM traffic analysis was performed for the Preferred Alternative in Chapter 5 of the FEIS, which included the extra lane at the Whitehurst Freeway and Canal Road intersection. This analysis considered existing traffic conditions and proposed traffic movements to determine traffic impacts of the Preferred Alternative. The results indicate that the length of the auxiliary lane is adequate and does not need to be extended.

COMMENT 2. Public comments were not sought for Alternative 2A Modified, a new plan, as required under Section 106 hearing provisions of the National Historic Preservation Act. Allow for public comment on a modified Alternative 2A Modified as required under Section 106 of the NHPA.

RESPONSE: The impacts to Park land under the Preferred Alternative are less than the impacts to Park land under Alternative 2A from the DEIS and the FEIS. Chapter 9, the Section 4(f) Statement, of the FEIS fully discusses the use of all Park land. By letter dated December 28, 1998, the Advisory Council on Historic Preservation accepted the Memorandum of Agreement for the Preferred Alternative's effects on historic properties. As stated in the Council's letter, this completes the requirements of Section 106.

COMMENT 3. The length of the left turn lane form eastbound Canal Road is inadequate as most students arrive for class at the top of the hour and the stacking cars will back up into the thru lane on Canal Road. Eliminate the left turn from eastbound Canal Road into the University.

RESPONSE: A detailed NETSIM traffic analysis was performed for the Preferred Alternative in Chapter 5 of the FEIS. This analysis considered existing traffic conditions and proposed traffic movements to determine traffic impacts of the Preferred Alternative. The results indicate that the left turn stacking lane on eastbound Canal Road is adequate.

COMMENT 4. Levels of Service will worsen on Canal Road and neighborhood streets according to Table 5-1. Develop a Preferred Alternative that will improve, not worsen, the Levels of Service on Canal, Whitehurst, Foxhall and MacArthur.

RESPONSE: The purpose of the project is to improve vehicular access at the Canal Road entrance to Georgetown University.

The LOS decrease in the AM peak for 2016 at the Reservoir Road and Foxhall Road intersection is from a "D" to an "E+." However, the delay time has only been increased by 0.2 second, which is statistically insignificant. For other times at this intersection, the delay time at most increases by less than 10 seconds.

The LOS decrease in the AM peak for 2016 at the MacArthur Boulevard and Foxhall Road intersection is from an "E+" to an "E." However, the delay time has only been increased by 5.7 seconds. In the PM peak, the increase in delay is only 0.2 second, which is statistically insignificant.

As documented in the Memorandum of Law, dated February 18, 1999, signed by the Deputy General Counsel of the Office of the Secretary of Transportation, the Preferred Alternative, as described and analyzed in the FEIS, does not violate the Congressional mandate against "decreasing the efficiency of a Federal-aid primary highway," which includes Canal Road.

COMMENT 5. The FEIS does not take into account the additional traffic generated by future development of Georgetown University. Perform more thorough traffic studies that include traffic generated from future development of Georgetown University.

RESPONSE: As stated in the re-evaluation of the DEIS in Appendix H of the FEIS, the existing campus master plan for Georgetown University is in effect until December 31, 2000. The formal submittal of the new master plan is not expected until the year 2000. Waiting on approval of the new master plan would result in a delay of at least 19 months. The background traffic growth of 1.2% assumes development at Georgetown University. This increase in background growth is applied to all alternatives, including the No-Build alternative. Any changes potentially attributed to the University or any other existing or potential institution is included in this increase. It would be inappropriate to consider or suggest alternative land uses other than those already approved by the local jurisdiction.

The only issue relevant to the FEIS and an updated Campus Plan would be the amount of traffic generated. The traffic is controlled by the parking cap imposed by BZA to limit the number of vehicles at the South Campus Parking Lot. The parking cap has been in effect since 1983 and there is no indication that this cap will be changed.